Model Core Curriculum Project

Lead Team meeting
Feb. 28, 2006
Des Moines Botanical Center

At a fast-paced Feb. 28 work session, the Model Core Curriculum Lead Team offered generally positive reactions to initial reports from three curriculum Work Teams – Literacy, Science and Math. Few challenged the deep content taking shape in each work teams' report, although several members offered suggestions on how best to present the information to serve the widest possible audience – from students to parents to educators.

All three Work Teams are still writing portions of the proposed core curriculum. So the Lead Team was seeing a sampling of each. Still, it was clear that Work Teams have devoted hours of time to deep backgrounding and consulting experts in Iowa and beyond, all while keeping top of mind the primary goal: identifying essential content and skills to equip Iowa schools with a world-class model core curriculum.

The final curriculum proposal is to be presented to the Iowa State Board of Education at its May meeting.

Among the issues addressed at the Lead Team meeting:

- Has each group captured the "foundational skills" to boost student achievement? The answer so far was a resounding "yes".
- What additional pieces will make the core curriculum more useful for educators? There was strong support for adding teaching examples to support more rigor and relevance in the classroom. The Science Team had made the most progress on this approach, and the Lead Team really endorsed that approach for all three.
- Will the curriculum serve students, parents and employers as well as educators?
- How to powerfully present the proposed curriculum on the web, to allow teachers to easily drill down through the curriculum and adopt it in their schools?

In making their initial reports, Work Team leaders described ambitious, painstaking research that has preceded the drafting of curriculum. One team leader noted that if all the documents they'd consulted were stacked up, it would be several feet high. Some teams were even granted pre-publication reviews of key professional reports.

And each team's leadership mentioned an aversion to writing just another curriculum document that was "a mile wide and an inch deep". Instead, they are making hard choices and focusing on the most critical learning. The terms differed among the teams, but each identified essential skills to buttress the core subject areas selected:

For Science, it's fundamental concepts.
For Math, it's strands with focal points.
For Literacy, it's critical concepts.

Science

This model core curriculum team followed the format and content of the National Science Education Standards. They stressed the importance of student inquiry, noting that science is more than amassing a body of knowledge. Rather, it is a way of thinking and investigating.

The Science Team zeroed in on **four main content standards**, buttressed by underlying principles and a robust selection of sample teaching activities:

- Science as inquiry
- Physical science
- Earth and space science

- Life science

Math

This team identified seven characteristics for a world-class mathematics curriculum:

- Teaching for understanding, moving from “memorize and practice” to “understand and apply”.
- Problem-based instructional tasks, at the heart of teaching for understanding.
- Distributed practice that is meaningful and purposeful.
- A focus on deep conceptual AND procedural knowledge; one cannot be successful without the other.
- Rigor and relevance
- Technology
- Integrated

The Math Work Team called for all high school students to gain “powerful, flexible and widely-applicable mathematical skills” by the time they graduate. Those essential skills included:

- Problem Solving
- Communication
- Representation
- Ability to Make Connections
- Reasoning and Proof
- Mathematical Modeling to solve real-world problems

The math team report will offer five subject-related “strands”, fleshed out by focal points. Algebra was offered as a demonstration strand, with four focal points: functions, equations and inequalities, algebraic expressions and rates of change. Geometry, statistics and probability, numbers and operations and discrete mathematics will follow.

Literacy

This team followed a similar backgrounding and research phase before establishing a five-part set of literacy content and skills:

- Reading
- Listening
- Speaking
- Viewing
- Writing

Reading and Writing were presented in draft form for Lead Team members and offered in-depth discussion of what achievements would mark a proficient reader and writer. In reading, for example, it was noted that reading is not merely a technical skill but rather a developmental process. Besides a discussion of vocabulary and literature, the Reading curriculum called for proficiency in reading technical texts and functional documents. In the writing area, the more familiar writing forms are discussed but so are standards for “writing on demand”, skills that could be crucial in the workplace. The Literacy Team also will deal with what it means to be literate in a technology-driven information age.

All three teams stressed the importance of teachers from other content areas to take ownership for teaching these core concepts of math, science and literacy. But it was perhaps most critical for Literacy. Responsibility lies with all the high school teaching faculty, team leaders noted.

What’s ahead

The Work Teams will continue meeting to finish the three core curriculums. The Lead Team will offer ongoing feedback via email and will reconvene April 26-27 in Des Moines to review the completed documents before sending it to the state board.